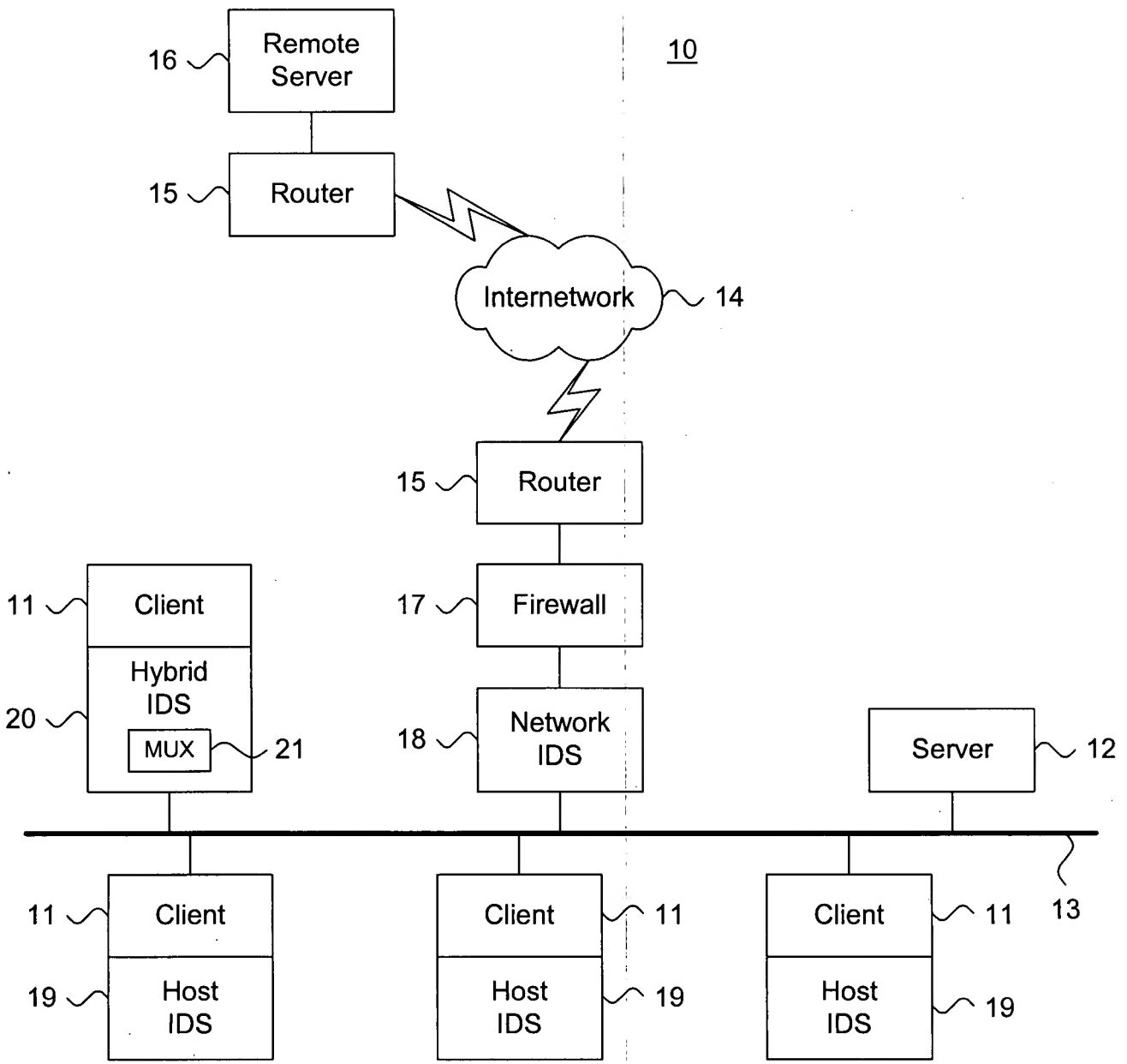
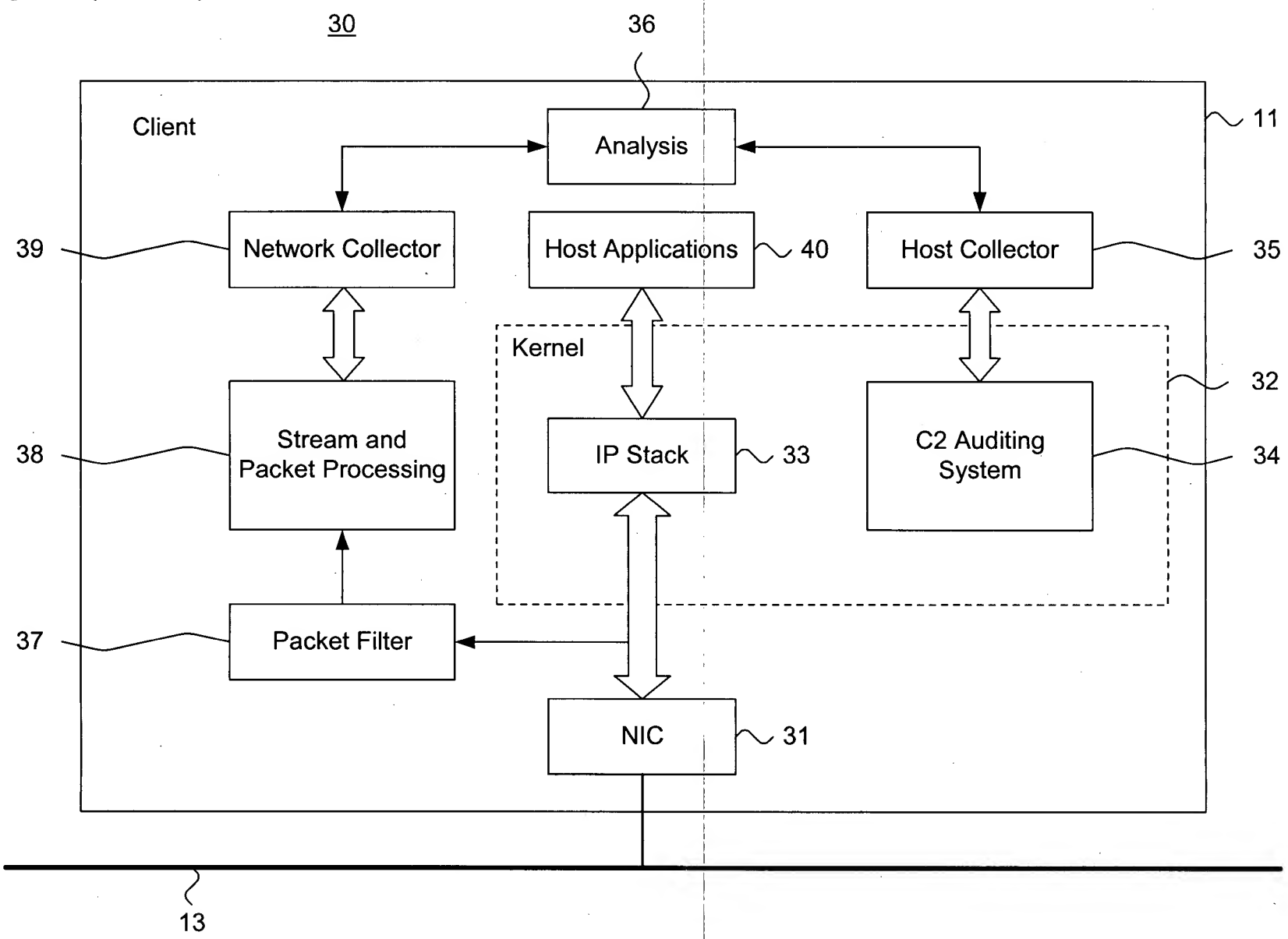
00h280"h99hh960

**Figure 1.**



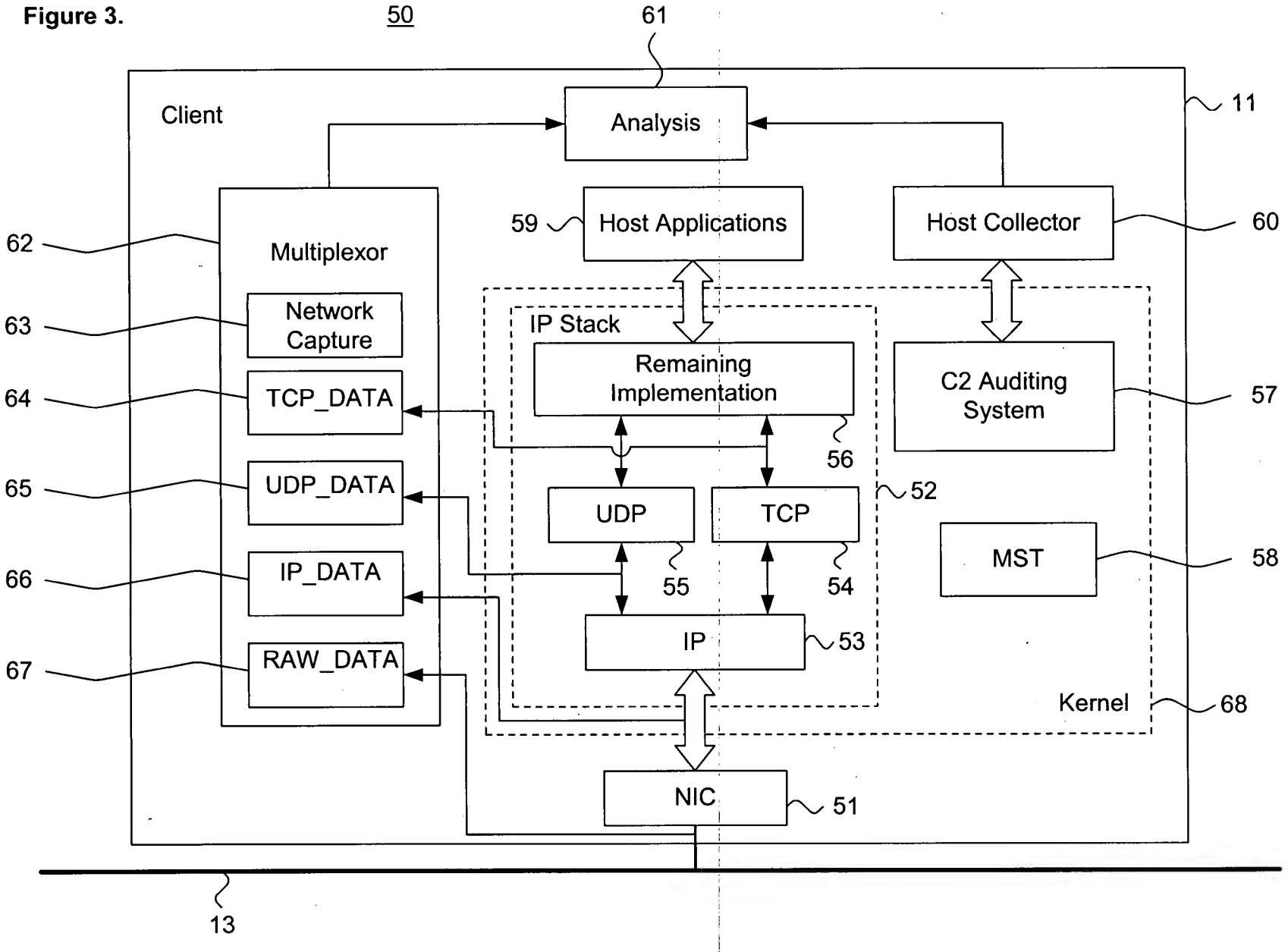
00h280" h99hh960

**Figure 2 (Prior Art).**



00h280"h93hh960

**Figure 3.**



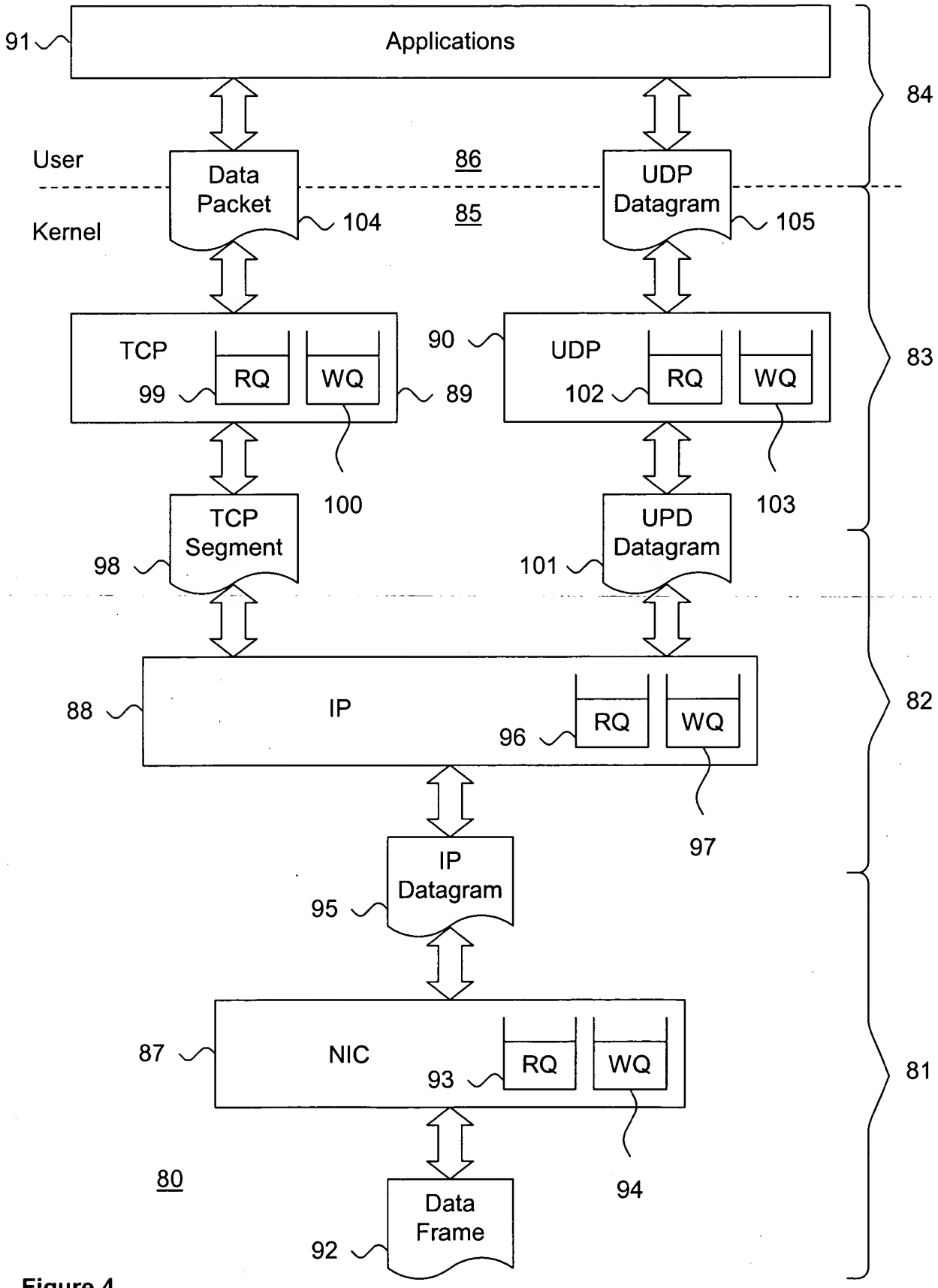

91
Applications
84
User
86
Data Packet
104
UDP Datagram
105
Kernel
85
TCP
99
RQ
WQ
89
90
UDP
102
RQ
WQ
83
100
103
TCP Segment
98
UPD Datagram
101
88
IP
96
RQ
WQ
82
97
IP Datagram
95
87
NIC
93
RQ
WQ
81
80
94
Data Frame
92

**Figure 4.**

Figure 5.

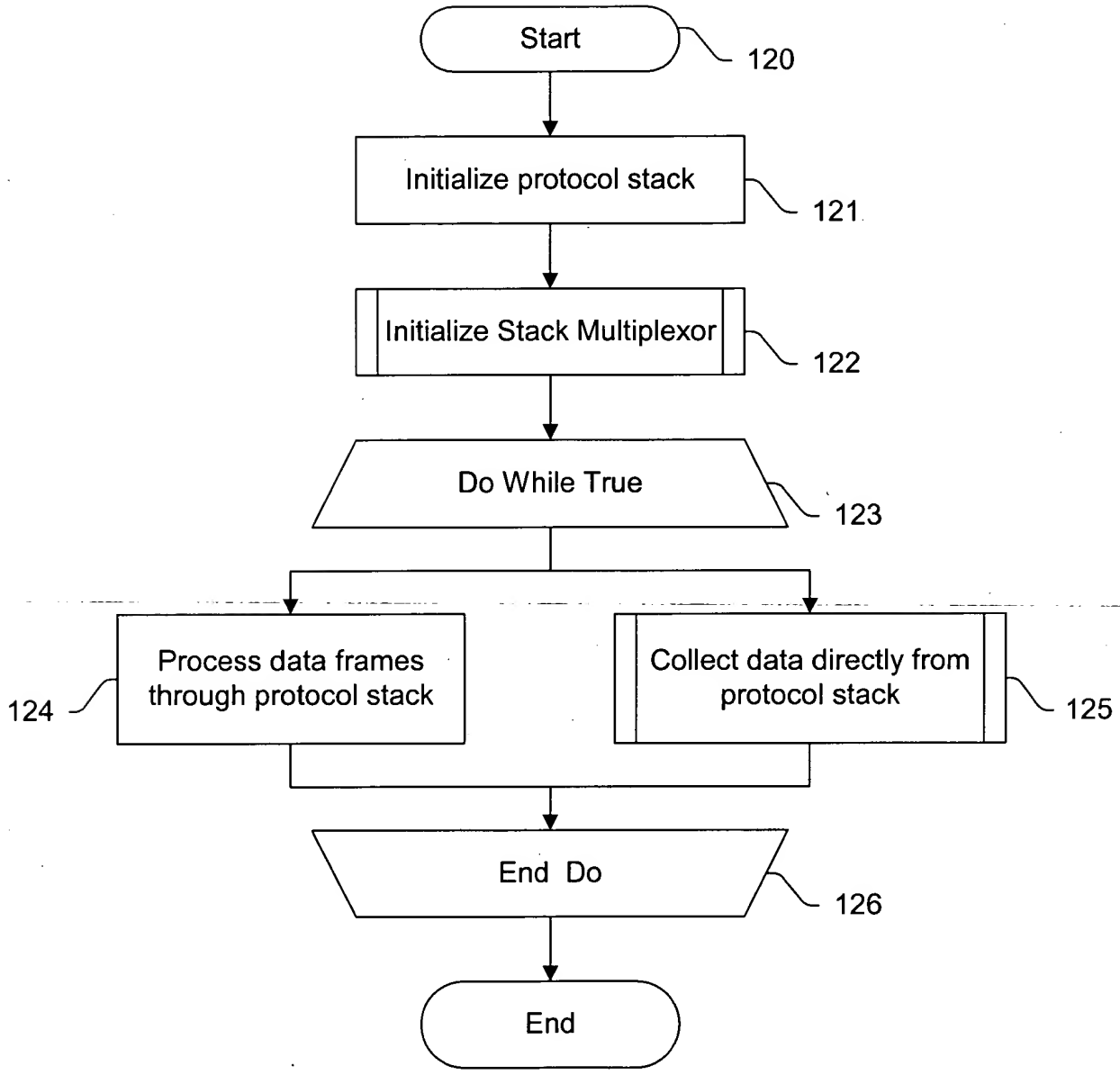

Start
120
Initialize protocol stack
121
Initialize Stack Multiplexor
122
Do While True
123
Process data frames through protocol stack
124
Collect data directly from protocol stack
125
End Do
126
End

Figure 6.

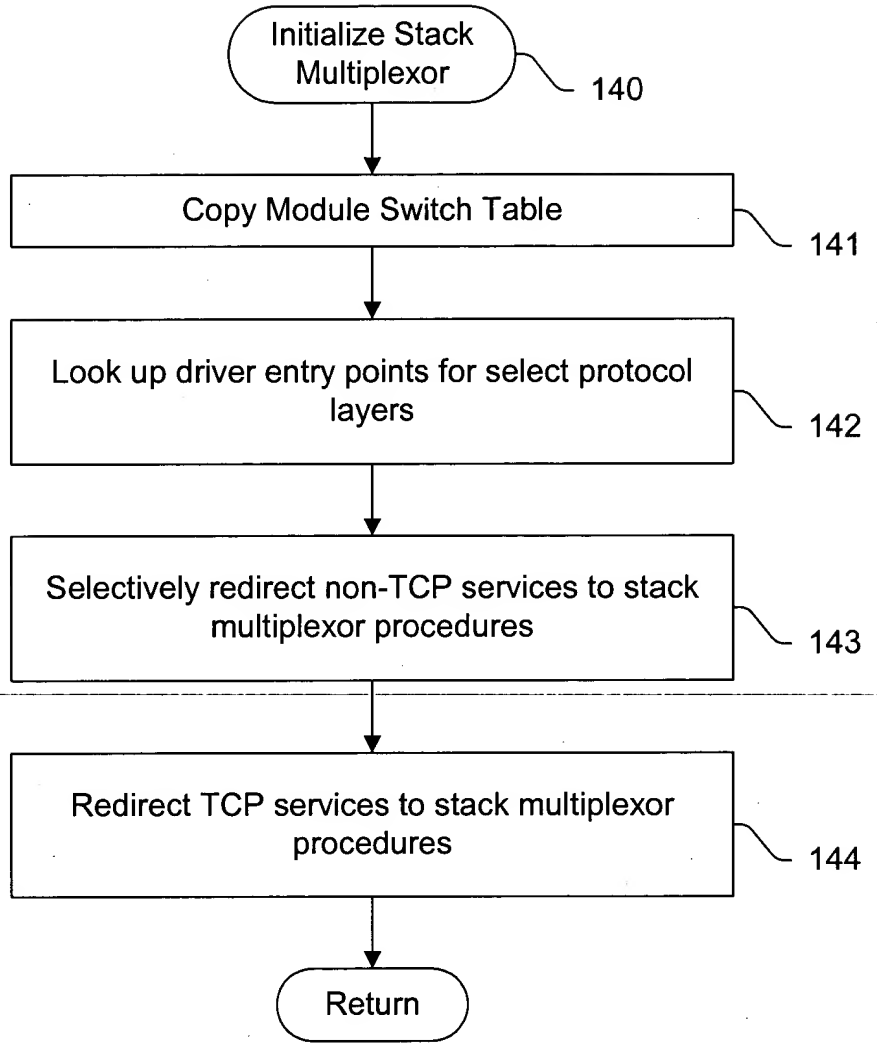

Initialize Stack Multiplexor
140
Copy Module Switch Table
141
Look up driver entry points for select protocol layers
142
Selectively redirect non-TCP services to stack multiplexor procedures
143
Redirect TCP services to stack multiplexor procedures
144
Return

Figure 7.

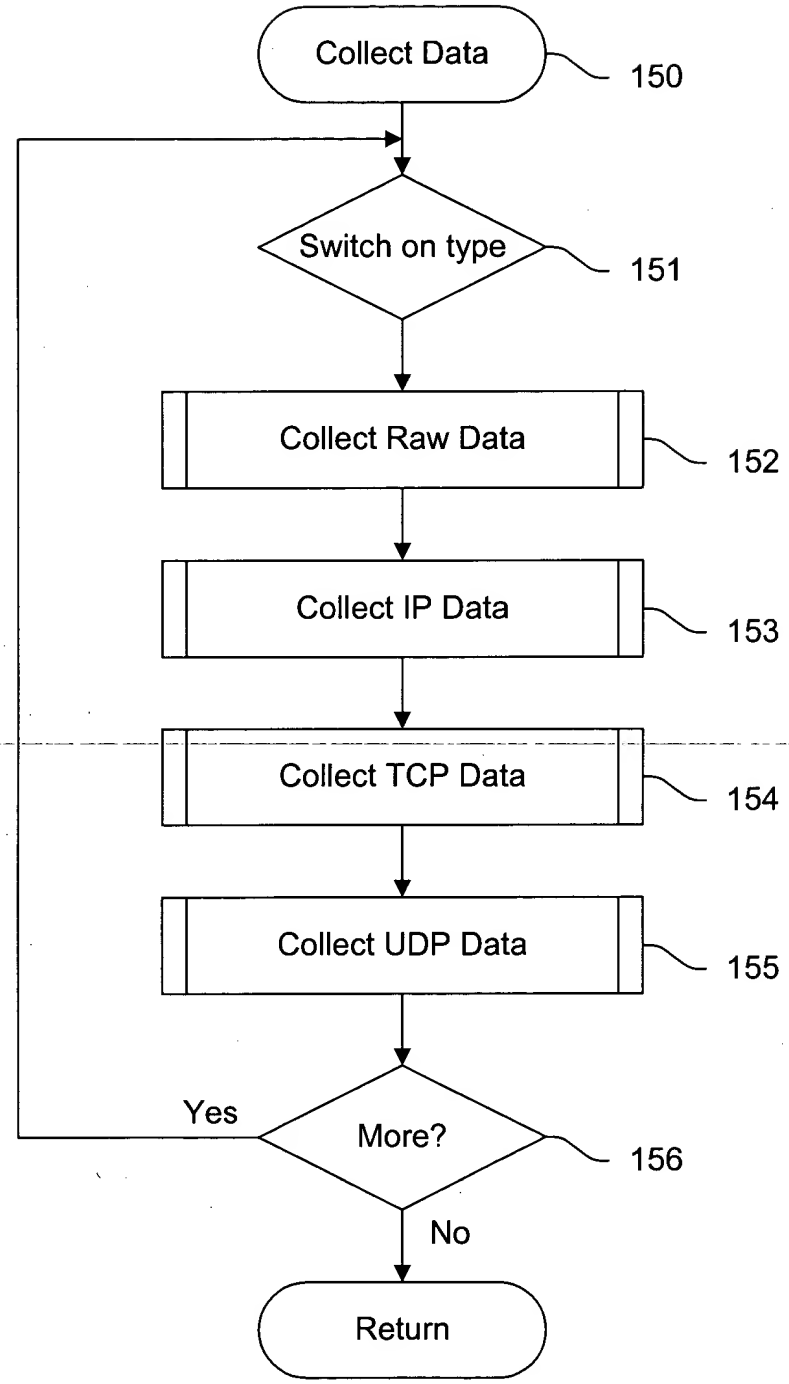

Collect Data
150
Switch on type
151
Collect Raw Data
152
Collect IP Data
153
Collect TCP Data
154
Collect UDP Data
155
Yes
More?
156
No
Return

**Figure 8.**

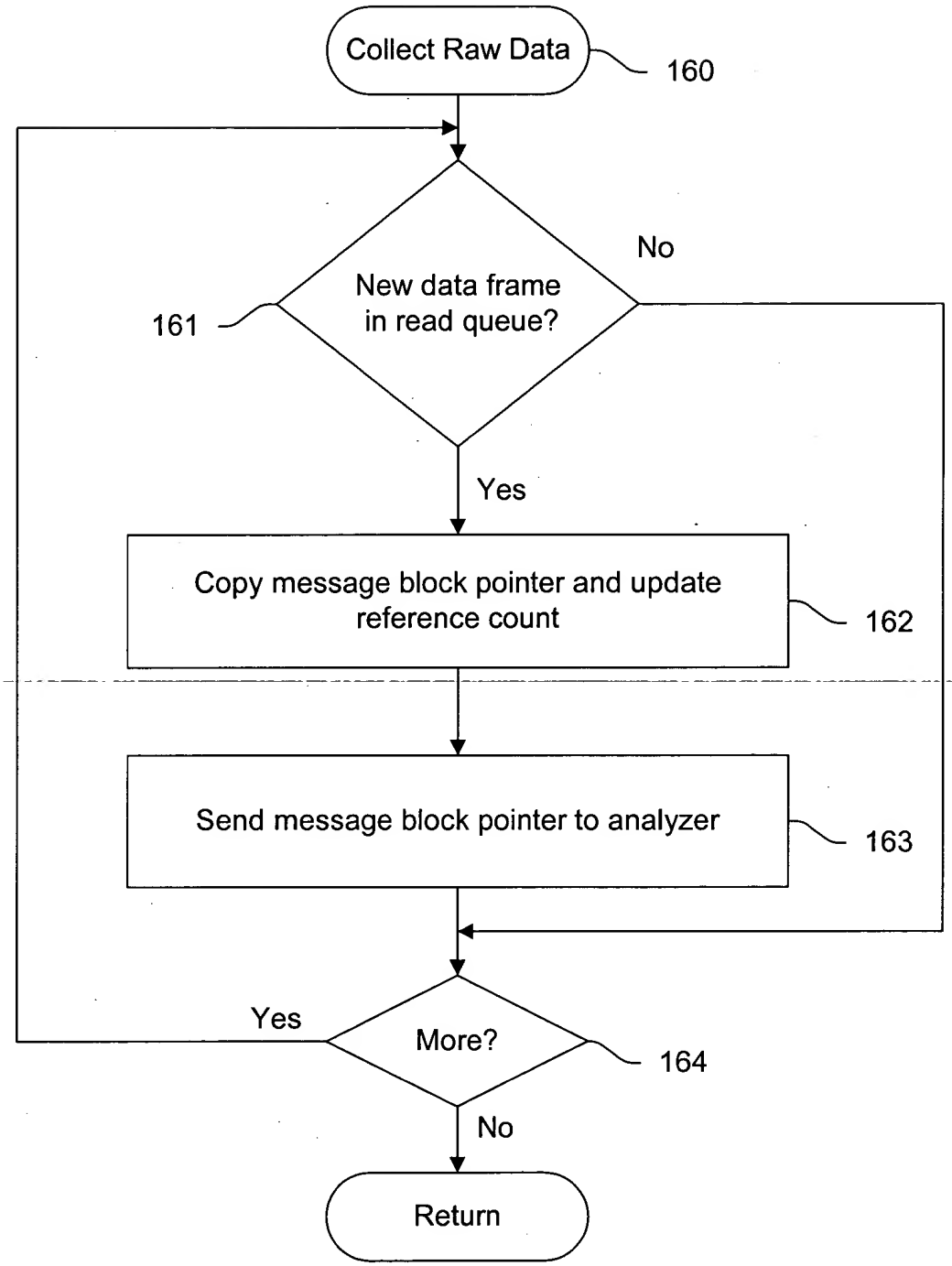

Collect Raw Data
160
New data frame in read queue?
161
No
Yes
Copy message block pointer and update reference count
162
Send message block pointer to analyzer
163
More?
164
Yes
No
Return

**Figure 9.**

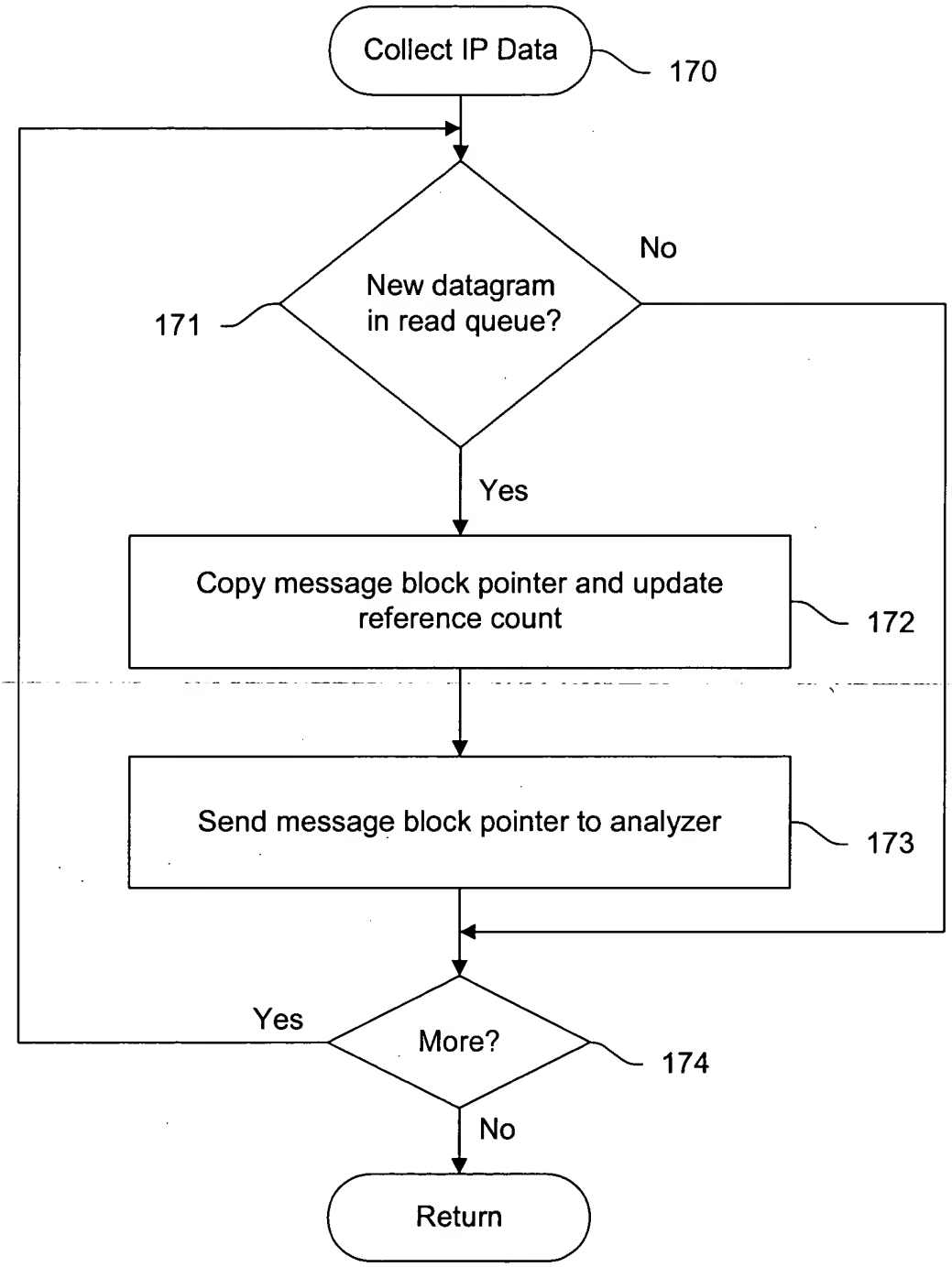

Collect IP Data
170
New datagram in read queue?
171
No
Yes
Copy message block pointer and update reference count
172
Send message block pointer to analyzer
173
More?
174
Yes
No
Return

Figure 10.

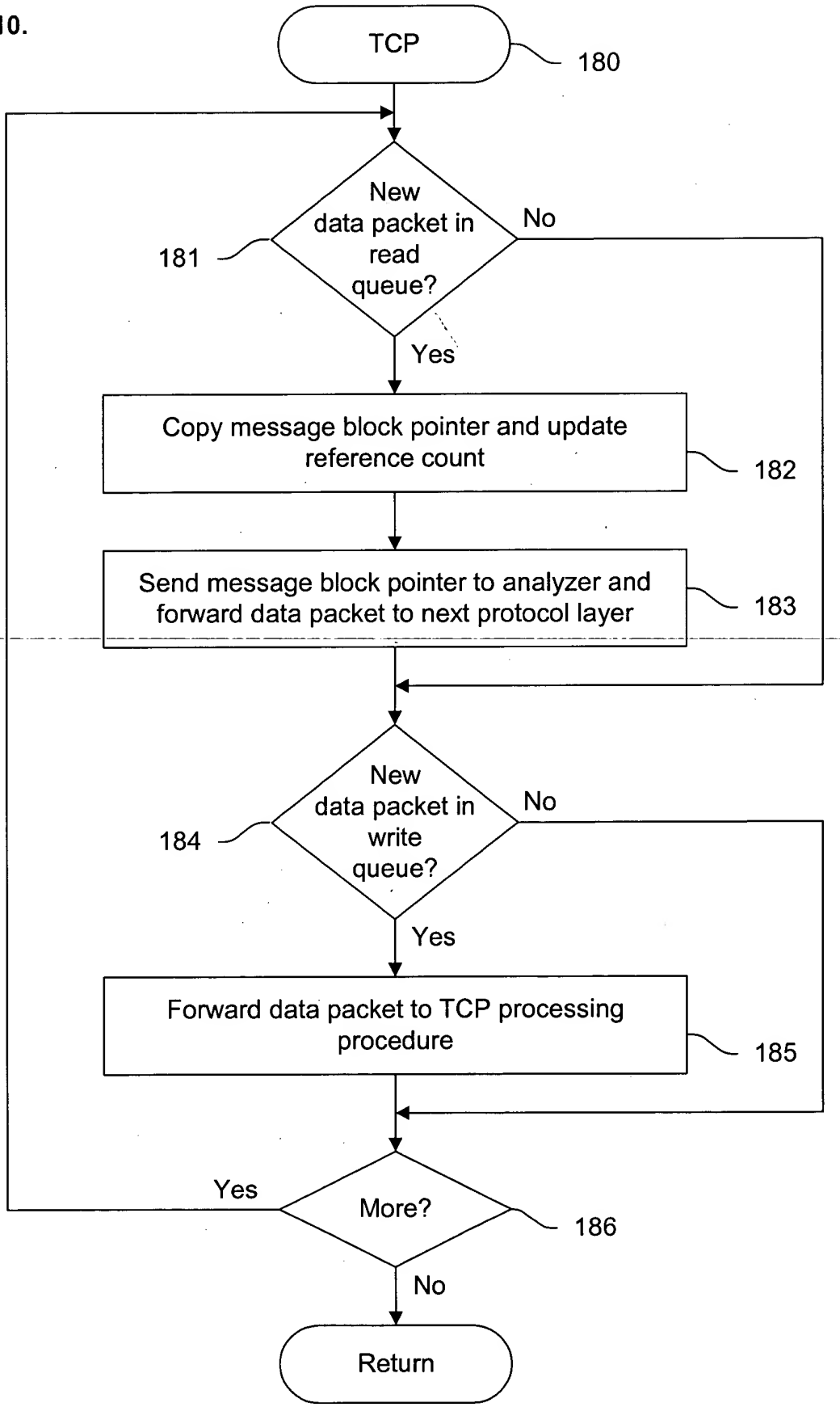
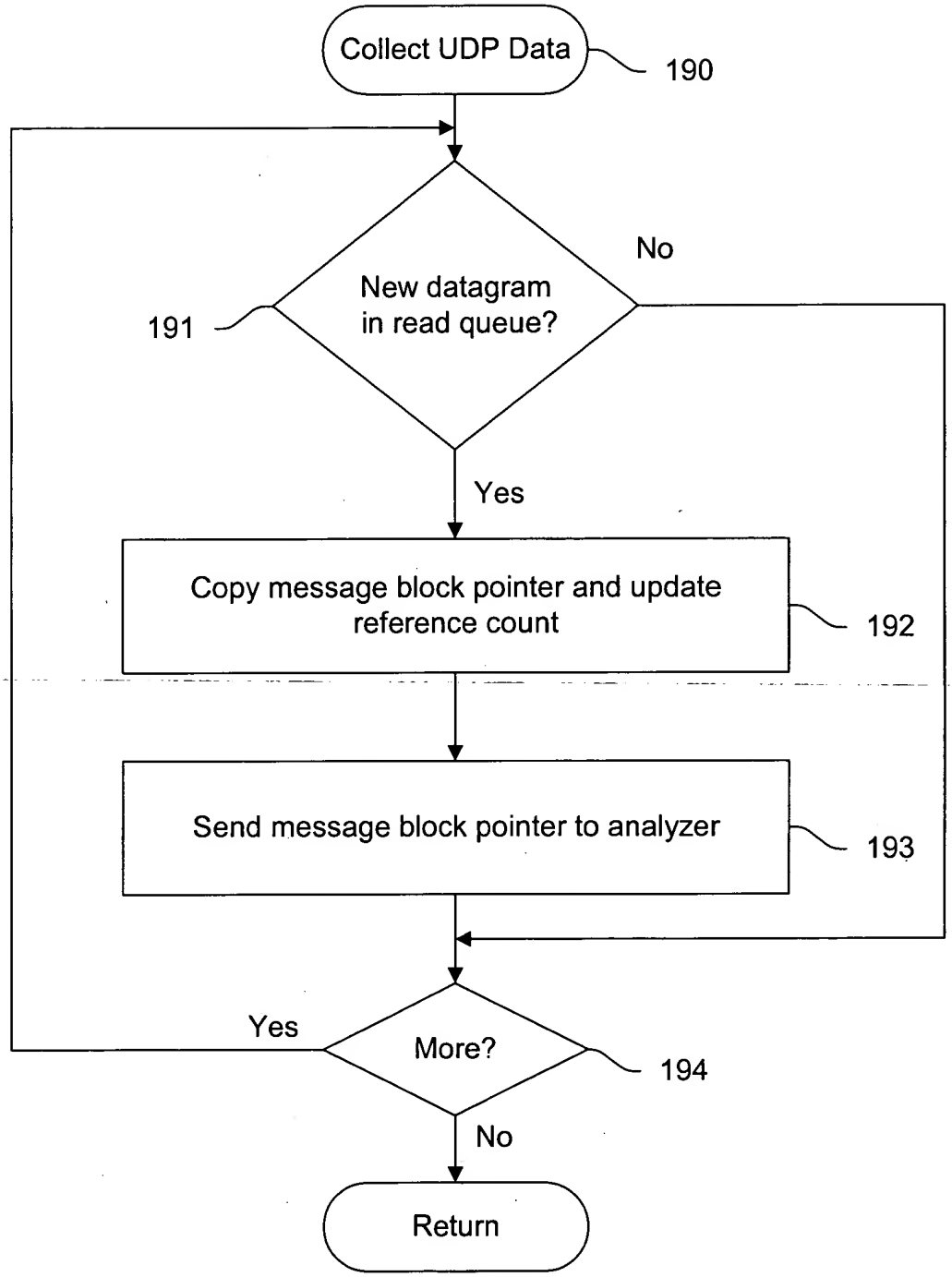

TCP
180
New data packet in read queue?
181
No
Yes
Copy message block pointer and update reference count
182
Send message block pointer to analyzer and forward data packet to next protocol layer
183
New data packet in write queue?
184
No
Yes
Forward data packet to TCP processing procedure
185
Yes
More?
186
No
Return

Figure 11.


Collect UDP Data
190
New datagram in read queue?
191
No
Yes
Copy message block pointer and update reference count
192
Send message block pointer to analyzer
193
More?
194
Yes
No
Return